#### **SAIP2013**



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# Angular distribution of the Isovector giant dipole resonance (IVGDR) in neutron-rich calcium isotopes with proton inelastic scattering reaction at 200 MeV

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## Abstract content <br/> &nbsp; (Max 300 words)

High energy-resolution proton inelastic scattering experiments have been extensively explored during the last decade at iThemba LABS, Somerset West, South Africa. This is with a view to understanding the structure of giant resonances in nuclei across the periodic table. Fine structure of the Isovector Giant Dipole Resonance (IVGDR) in isotopes of calcium (42, 44, 48Ca) has been proposed to be investigated using (p, p') reaction at 200 MeV. Distorted Wave Born Approximation (DWBA) calculations have been used to determine angular distributions of the prominent E1 states up to the region of the IVGDR. The experimental investigation will be carried out with the recently developed Zero-degree Facility of the K600 Magnetic spectrometer of iThemba LABS.

#### Apply to be br> considered for a student br> award (Yes / No)?

Yes

#### Level for award<br/> d-br>&nbsp;(Hons, MSc, <br>> &nbsp; PhD)?

PhD

## Main supervisor (name and email)<br/> -br>and his / her institution

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# Would you like to <br/> submit a short paper <br/> for the Conference <br/> Proceedings (Yes / No)?

No

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